



SEQUENCE LISTING

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KANO, YASUNOBU
NAKAMURA, TOSHIYUKI
SASAKI, TAKAYUKI

<120> ANAEROBIC BACTERIUM AS A DRUG FOR CANCER GENE THERAPY

<130> 671308-2001.1

<140> 10/782,899

<141> 2004-02-23

<150> 09/816,391

<151> 2001-03-26

<150> JP 2000-287688

<151> 2000-09-21

<160> 4

<170> PatentIn Ver. 3.2

<210> 1

<211> 600

<212> DNA

<213> Bifidobacterium longum

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<221> CDS

<222> (193)..(471)

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atgcgctagt atcattgatg acaacatgga ctaagcaaaa gtgcttgtcc cctgacccaa 180
gaaggatgct tt atg gca tac aac aag tct gac ctc gtt tcg aag atc gcc 231
          Met Ala Tyr Asn Lys Ser Asp Leu Val Ser Lys Ile Ala
            1             5             10
cag aag tcc aac ctg acc aag gct cag gcc gag gct gct gtt aac gcc 279
Gln Lys Ser Asn Leu Thr Lys Ala Gln Ala Glu Ala Ala Val Asn Ala
      15             20             25
ttc cag gat gtg ttc gtc gag gct atg aag tcc ggc gaa ggc ctg aag 327
Phe Gln Asp Val Phe Val Glu Ala Met Lys Ser Gly Glu Gly Leu Lys
      30             35             40             45
ctc acc ggc ctg ttc tcc gct gag cgc gtc aag cgc ccg gct cgc acc 375
Leu Thr Gly Leu Phe Ser Ala Glu Arg Val Lys Arg Pro Ala Arg Thr
            50             55             60

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ggc cgc aac ccg cgc act ggc gag cag att gac att ccg gct tcc tac 423
Gly Arg Asn Pro Arg Thr Gly Glu Gln Ile Asp Ile Pro Ala Ser Tyr
          65                      70                      75

ggc gtt cgt atc tcc gct ggc tcc ctg ctg aag aag gcc gtc acc gag 471
Gly Val Arg Ile Ser Ala Gly Ser Leu Leu Lys Lys Ala Val Thr Glu
          80                      85                      90

tgaccttctg ctcgtagcga ttacttcgag cactactgac gacaaagacc ccgaccgaga 531

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<220>
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<210> 3
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<220>
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<212> PRT
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  20          25          30

```

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Phe | Val | Glu | Ala | Met | Lys | Ser | Gly | Glu | Gly | Leu | Lys | Leu | Thr | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Phe | Ser | Ala | Glu | Arg | Val | Lys | Arg | Pro | Ala | Arg | Thr | Gly | Arg | Asn |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Pro | Arg | Thr | Gly | Glu | Gln | Ile | Asp | Ile | Pro | Ala | Ser | Tyr | Gly | Val | Arg |
| | 65 | | | | 70 | | | | | 75 | | | | | 80 |
| Ile | Ser | Ala | Gly | Ser | Leu | Leu | Lys | Lys | Ala | Val | Thr | Glu | | | |
| | | | | 85 | | | | | 90 | | | | | | |